TABLE 22

HEAT CAPACITY AND CALORIFIC INTENSITY CURVES

Comparison of five gases arranged in the order of their calorific intensity giving their thermal value, thermal value of combustible mixture, the heat contained in their products of combustion, the volume of the air supply, the combustible mixture and the products of complete combustion.

	Blue Water Gas, No. 9	Coke Oven Rich Gas, No. 11	Natural Gas "C," No. 6	Producer Gas "HAW / No. 5	Blast Furnace Gas, No. 1
Calorific intensity: 100% air supply C ..	1920°	I860[0]	1840°	1650°	1310°
F	3488°	3380°	3344°	3002°	2390°
180% air supply C	1340°	1295°	1230°	1225°	1050°
F	2444°	2363°	2246°	2237°	1922°
Calories per in[3] of °as	2585	4180	8260	1482	835
B.t.u. per cubic foot of gas	291 917	468 776	925 800	167 636	93 497
Combustible mixture, 100% ait supply: Calories per m[3] ..... B.t.u. per cubic foot. . . .	103 1050	87 823	90 800	72 693	55 546
B.t.u. per cubic foot . . Combustible mixture, ISO % *nil*	119	92 469	90 464	78	61
B.t.u. per cubic foot . . . Products of combustion, 180% air	70	53 486	52 464	37	42
B.t.u. per cubic foot. . . Volumes per 100 volumes of gas burned completely of: Air supply, theoretical 100%. . .	77 182 282	55 439 539	52 933 1033	39 133 233	45 68 168
Products of combustion, theoretical	245 318	508 791	1032 1681	214 348	153 122
Combustible mixture, 180% air	418	891	1781	448	222
Products of combustion, 180% air	380	860	1780	429	208